



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/914,551      | 11/20/2001  | John-Paul Maye       | 11318.58USWO        | 9694             |

23552 7590 10/01/2003

MERCHANT & GOULD PC  
P.O. BOX 2903  
MINNEAPOLIS, MN 55402-0903

|          |
|----------|
| EXAMINER |
|----------|

WARE, DEBORAH K

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1651

DATE MAILED: 10/01/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/914,551

Applicant(s)

MAYE ET AL.

Examiner

Deborah K. Ware

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1651

### **DETAILED ACTION**

Claims 1-21 are presented for examination on the merits. The Preliminary Amendments filed August 29, 2001, and August 13, 2002, have been received and entered.

#### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/DE00/00485, filed on February 22, 2000. However, it is suggested that Applicant provide continuing data at page 1, line 1 of the specification, with respect to this instant application being a 371 of PCT/DE00/00485, filed February 22, 2000 which claims benefit to Germany 199 09 827 1, filed March 5, 1999.

#### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on January 2, 2002, has been considered. A copy of the PTO-1449 Form is enclosed.

#### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

##### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

Art Unit: 1651

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: it does not contain a reference to the PCT application which claims benefit to the foreign priority document as noted above. It is suggested as above to amend page 1, line of the instant specification. In addition, the specification does not include **a brief description of the drawing(s)** as also noted above for the preferred lay out of the specification.

Appropriate correction is required.

### ***Claim Objections***

Claims 15-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Art Unit: 1651

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It is unclear how claim 15 further limits claim 1.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 21 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1651

Claims 1-21 are rendered vague and indefinite for the recitation of “the content of microorganisms” wherein the term lacks antecedent basis for recitation of “the content”.

It is suggested to change “the” before “content” to —a—in claim 1 at line 1.

Furthermore, the claimed procedure or method of claim 1 is vague and indefinite since it fails to recite clear and distinct process steps for carrying out the claimed procedure.

Also the terms “the sugar industry”, “the active substance”, “the fact”, “the pH”, “(and)”, “the dissociated form” and “non-dissociated form” all lack antecedent basis in the claims too (see claim 1, especially). It appears that all is required of the claimed method is adding Hops acid to an aqueous process medium, wherein pH value of the Hops acid is higher than pH value of the process medium. Other than that there appears to be no additional steps for carrying out the claimed process steps. However, this is very unclear in the claim(s). Furthermore, the language “characterized by the fact that” is wording and verbose and not necessary. It is suggested to change the phraseology to a —wherein—clause.

Also claim 2 is grammatically indefinite and —a—should be inserted before “discontinuous” at line 1. Also “addition” recited at line 3, lacks antecedent basis. Claim 3 is rendered vague and indefinite for the recitation of “the solution” which lacks antecedent basis. Also how can a solution display a concentration as set forth by claim 3 at line 3, wherein the language “the solution displays hops acid”, what does this mean per se? It is suggested to change the phrase to read as — wherein the composition contains a concentration of 2-40% hops acid in solution-- or some similar language in which to clearly and distinctly claim the procedure being claimed. Furthermore, the term

Art Unit: 1651

“preferably” and other ranges listed associated with the term in the claim renders the claim unclear because it is uncertain whether such usage of “preferably” and associated ranges patentably limits the claim(s). Also the terminology recited in all of the claims, “characterized by the fact that” renders the claims indefinite and unclear because it is uncertain whether other characteristics are intended by the language or what? The language renders the claims unclear and uncertain. The metes and bounds of the claims can not be determined. Claim 4 is rendered vague and indefinite for the above reasons listed for claims 1-3.

Claims 5-7 are rendered vague and indefinite for the recitation of wordy and verbose language which is superfluous and makes the claims unclear. For example, the recitation of “being dealt with – at least predominantly – in the case of hops acid is a-acid” in claim 5. Similar language is recited in each of claims 6-7 as well. This language renders the claims unclear because it is uncertain what additional limitation is desired to be set forth in the claims other than defining a type of hops acid. The metes and bounds of the claims can not be determined. Claims 7-8 are further rendered vague and indefinite for recitation of “/or its derivative, or in any event a mixture thereof” wherein it is uncertain what derivatives are intended by the meaning of the language and what “or any event” means in the claims. Claim 9 is vague and indefinite for the recitation of “an alkaline medium” since it is unclear whether this is in addition to the medium defined in claim 1 or what? The term perhaps lacks antecedent basis. Claim 9 should possibly be changed as follows: --Procedure according to claim 1, wherein the alkaline medium is selected from the group consisting of alkaline hydroxide, potassium

Art Unit: 1651

hydroxide or sodium hydroxide and mixture thereof--. Claim 10 is rendered vague and indefinite for the recitation of "the concentration of" since the term lacks clear antecedent basis. Also is uncertain whether the preferable ranges recited patentably limit the claim. Therefore, it is suggested to change claim 10 to read as --Procedure according to Claim 9, wherein the alkaline medium is alkaline hydroxide which is present in an amount of 1 --5% or 1-5% or 2-4%, or some similar language which patentably limits the claim clearly without changing the scope of the claimed subject matter. Claims 11-14 are rejected for reasons discussed above for "characterized by the fact that".

Claims 15-20 are rendered vague and indefinite for several recitations in claim 15 to begin with, claim 15 recites several terms which lack antecedent basis in the claims. These terms are "the procedure" in line 1 and "the sugar industry" in line 2. It is suggested to rewrite the preamble as follows: --Procedure for production of the solution of claim 1 for addition to the sugary or the aqueous process medium, said procedure comprising: --. . Further, several terms in the claim 15 lack antecedent basis such as "the amount of hops" and "the added-in hops acid". Furthermore, the phrases "a prescribed concentration range" and "a prescribed period of time" are unclear as to what these are intended to mean in the claim. Claims 16-20 are also rendered vague and indefinite for reasons discussed above for usage of similar language.

Claim 21 provides for the use of hops acids, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process



Art Unit: 1651

applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO-A-97/33971, cited on the enclosed PTO-892 Form.

Claims are drawn to procedure for control of a content of microorganisms in a sugary, aqueous process medium of extraction systems of the sugary industry using hops acid as the active substance, which includes bringing the hops acid into solution in an aqueous alkaline medium and adding it to the process medium wherein the pH of

Art Unit: 1651

the added solution is higher than the pH of the process medium and the hops acid in the process medium passes over from the dissociated form into the non-dissociated form.

WO patent, as cited above, teaches a process for checking the bacteria content in a sugary aqueous medium using a concentrated aqueous, alkaline solution of hops acid which is present in the alkaline medium as potassium salt. The pH value of the acid solution is in the range of 9.5-11 (see examples 1-2) and thus, is higher than the pH of the process medium. Upon addition of the solution to the process medium the hop bitter acids change from the dissociated form to the non-dissociated form, see page 4, line 12 ff; page 5, line 31 ff; and page 7, line 7 ff.

The claims differ from the WO patent in that the intended field of application is a saccheriferous aqueous process medium of extraction installations in the sugar industry.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to select for an analogous situation since the checking of the microorganism content in a process medium of extraction installations in the sugar industry and the checking of the microorganisms content in a brewing process medium of the prior art both require inhibition of the growth or the combating of microorganisms in the presence of sugar mediums. Further, the use of hop acid as a bacteriostatic agent in the field of the sugar industry does not require a particular type of active ingredient or an adaptation of the process and would have been expected to provide successful results in the sugar industry. The use of hops acid is clearly within the purview of an ordinary artisan. Each of the claim limitations drawn to specific hops acid,

Art Unit: 1651

pH, concentrations, process steps, etc. are clearly recognized by the cited prior art and within the skill of an ordinary artisan. Therefore, it would have been obvious to use the concept of regulation of microorganism content in a sugar aqueous brewing process medium of a previously disclosed process in an analogous situation: to check the microorganisms content in a process medium of extraction installations in the sugar industry using the claimed procedure and process steps. Thus, the claims are prima facie obvious over the cited prior art.

All claims fail to be patentably distinguishable over the state of the art discussed above and cited on the enclosed PTO-892 and/or PTO-1449. Therefore, the claims are properly rejected.

The remaining references listed on the enclosed PTO-892 and/or PTO-1449 are cited to further show the state of the art.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah K. Ware whose telephone number is 308-4245. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 308-4743. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0196.

Application/Control Number: 09/914,551

Page 11

Art Unit: 1651

*Deborah K. Ware*  
**DEBORAH K. WARE**  
**PATENT EXAMINER**

Deborah K. Ware  
September 25, 2003